



Docket No. 740123-4
Serial No. 10/049,696

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Patent Application of:

Olivier BRIQUE et al

Serial No. 10/049,696

Filed: February 15, 2002

For: **MESSAGE TRANSMISSION
PROCESS AND SYSTEM FOR
DATABASES**

)

) Group Art Unit: 2162

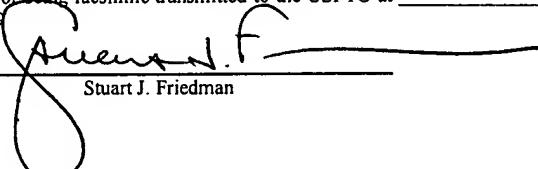
) Examiner: Alam, Shahid Al

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Stuart J. Friedman

APPEAL BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

As set forth in the Notice of Appeal filed April 13, 2009, Appellant hereby appeals the Examiner's final rejection of claims 27, 29-31 and 39 of the above-identified application, and requests that the Board of Patent Appeals and Interferences reverse the final rejection of the appealed claims.

I. REAL PARTY IN INTEREST

NagraCard S.A., a Swiss corporation, is the real party in interest.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

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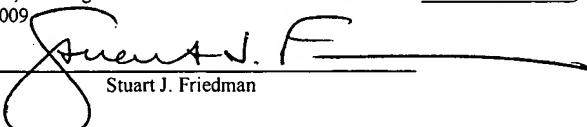
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APPEAL BRIEF

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Sir:

As set forth in the Notice of Appeal filed April 13, 2009, Appellant hereby appeals the Examiner's final rejection of claims 27, 29-31 and 39 of the above-identified application, and requests that the Board of Patent Appeals and Interferences reverse the final rejection of the appealed claims.

I. REAL PARTY IN INTEREST

NagraCard S.A., a Swiss corporation, is the real party in interest.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

III. STATUS OF CLAIMS

Claims 27, 29-31 and 39 stand finally rejected and are the subject matter of this appeal. Claims 1-26, 28 and 32-38 have been canceled.

IV. STATUS OF AMENDMENTS

No amendments were filed subsequent to the final rejection.

V. SUMMARY OF CLAIMED SUBJECT MATTER

This appeal is taken from the final rejection of claims 27, 29-31 and 39, of which only claim 27 is independent. No means or step plus function recitations, as permitted by 35 U.S.C. 112, sixth paragraph, are present in the claims. Dependent claims 29-31 and 39 rise or fall with independent claim 27.

In independent claim 27 applicant sets forth a method of updating a large quantity of network user terminal databases by sending an identical message from the message center over a unidirectional connection to all of the user databases without any database addressing, i.e., without preselecting certain of the databases to receive and act on the message. This "group" message includes one or more conditional controls, i.e., queries for searching the useful data portion (as contrasted with the system/managing data portion--see pages 2-3 of the above-captioned application) of the distributed user databases. After each individual user database receives the "group" message and executes the queries by searching the useful data present in each user database for predetermined data, the user database is conditionally updated according to the results obtained by the search of the useful data. It is noteworthy that according to the claimed method, the "group" message is sent from the managing center over a unidirectional connection and no return message from the databases to the managing center regarding the performing of the conditional updating is permitted. In this way, the same message addressed to all subscribers' databases will have different effects on each database in function of the content of the database and not in function of its unique identifier or other system data. This method allows addressing a great number of databases with a single message transmitted to all databases to cause searching of the useful data in each database and to execute the updating operation only when necessary in function of

comparison results between the data of the message and the content of the database. Support for the claimed features can be found at least on page 1, lines 3-4; page 2, lines 20-28; page 3, lines 1-22 and lines 27-30; page 4, lines 1-30; page 5, lines 1-2.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Appellant respectfully requests the Board to review and reverse the following single ground of rejection:

Claims 27, 29-31 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Pirovano et al** (Published European Patent Application No. 0491069 A1) in view of **Yamagishi** (U.S. Patent No. 6,370,143).

VII. ARGUMENT

Background.

In a communications network comprising a managing center and a plurality of distributed users, each user having a user database, such as a Pay-TV system, it is known to update the user databases by sending data from the managing center. These messages are addressed either to a particular user, selected users or to all users by including in the message the single identifier address of each database to which it is directed. Typically, the user databases contain management data, which enables each user database to determine whether the message is intended for it and to access the message, but not useful data. The message itself contains the useful data necessary for the updating. Often multiple messages must be exchanged between the managing center and the recipient databases to complete the tasks of recipient identification and useful data transmission. Frequently, the managing center must repeat the sending of messages periodically in order to ensure that the messages have been received by the intended databases. When it is appreciated that communications networks frequently involve millions of user databases (e.g., Pay-TV subscribers), the mutual exchange of messages and the repetitive sending of messages by the managing center very quickly saturate the transmission capacity of the system.

In accordance with the present invention, many of the shortcomings of such communications networks are overcome in a particularly unique manner. Briefly, the user

databases comprise both managing data and useful data and the messages from the managing center are identical to all user databases, thereby obviating the need to include database addressing in the message. Each message contains conditional controls that include queries for searching useful data already present in the user databases. Each of the user databases execute the queries and search the useful data in its database and the results of the searching of the useful data are used to conditionally update each user database. This eliminates the need for useful data to be sent to selected databases or for an exchange of messages between the managing center and each database regarding the performing of the conditional updating. In particular, the messages transmitted are unidirectional, i.e., from the managing center to the user databases, and there are no return messages from the databases to the managing center.

The rejection of claims 27, 29-31 and 39 under 35 U.S.C. 103(a) as unpatentable is not supported by the cited references and should be reversed.

The Examiner relies primarily upon Pirovano et al, stating that Pirovano et al teaches a method for transmitting messages over a communication network to update a large quantity of network user terminal databases, the messages being transmitted unidirectionally from a managing center to a plurality of distributed user databases. Final Office Action, dated January 21, 2009, page 5, 2nd paragraph. This, of course, is no more than the prior art referred to by the applicant in its specification at page 1. The Examiner goes on to state that the Pirovano et al method provides "identical messages without any database addressing . . . wherein each identical message includes controls that include queries for searching useful data present in distributed user database . . . and updating database criteria that determines whether said predetermined data is either present or not present in the content of the distributed user terminal database." Final Office Action, page 5, 3rd paragraph. There is clear error in the Examiner's reading of Pirovano et al as respects this last noted disclosure.

Pirovano Requires Database Addressing

It is abundantly clear from Pirovano et al that it does not teach providing identical messages without any database addressing. To the contrary, Pirovano et al teaches the use of addressed messages, stating at pages 2, lines 57 through page 3, line 1 that in achieving selective transmission, “each end-user [is] identified by a different unique identifier.” Continuing on page 3, lines 15-23 Pirovano states that a connection between terminals needs a calling-terminal-address and a called-terminal-address constituted by a unique identifier of the called terminal. Again at page 5, lines 32-33, Pirovano et al expressly states that in making the selective connection between terminals the NCR packet carries “the address” of the called terminal. Thus, it will be appreciated that Pirovano et al does not teach providing identical messages without any database addressing, wherein the message is received by all network user databases. The Examiner, in fact, does not disagree, stating at page 2, paragraph 3, lines 7-8 of the office action of February 6, 2007 that “Pirovano et al teaches databases addressing which can include general, random and other form of database addressing.” Again, at page 3, last paragraph of the Final Office Action, the Examiner states in responding to Applicant's argument, "Pirovano teaches database addressing and in Pirovano, each database comprises a unique identifier used for addressing." It follows that whatever form of addressing Pirovano et al uses, it does not disclose transmitting identical messages without any database addressing as required by claim 27.

Pirovano et al's Messages Do Not Include Queries for
Searching Useful Data in User Databases

Without any substantiation in the cited reference, the Examiner asserts that each of Pirovano et al's messages includes controls that include queries for searching useful data present in a distributed user database, citing Pirovano et al at page 9, lines 30-35, and updating database criteria that determines whether said predetermined data is either present or not present in the content of the distributed user terminal database, citing Pirovano et al at the Abstract and at page 2, lines 47-54. Neither of these statements is true. Page 9, lines 30-35 set forth, in a method for transmitting data, the step of terminating the connection between the information provider and a single end-user in one of two ways: (1) by means of a

connection duration parameter carried in said first command packet (NCR) (which packet is provided by the information provider and carries the unique identifier of the called terminal); and (2) by transmitting a second command packet (NDR) from the information provider to the end-user carrying a specific request of disconnection. It is strikingly apparent that nothing appearing at page 9, lines 30-35 even remotely suggests that Pirovano's messages include queries for searching the useful data of a distributed user database. Indeed, the cited subject matter makes clear that the connection termination is accomplished by means which are provided by the information provider to the end-user and not by predetermined data which were part of the user database and which were uncovered due to searching initiated by queries in the message sent to the end-user. Moreover, there is no disclosure elsewhere in Pirovano et al which establishes the point sought to be made by the Examiner. Likewise, the disclosure referred to by the Examiner at page 2, lines 47-54 does not refer to determining whether predetermined data is either present or not in the user database. Similarly for the disclosure referred to in the Abstract, which confirms only that each end user has a unique address and that packets are sent by the information provider to activate specific end users and to provide updating data. Clearly, there is nothing in Pirovano which teaches that the message from the managing center includes queries for searching the useful data in the distributed user databases to uncover data for conditionally updating the user database.

The Examiner concedes that Pirovano et al does not teach conditional updating of the databases as claimed in claim 27, Final Office Action, page 6, lines 1-2, and cites Yamagishi for its disclosure of a form of conditional updating.

**Yamagishi Requires Bi-directional Conditional Updating Utilizing
Return Messages From the Databases to the Managing Center**

The Examiner asserts that "Yamagishi teaches a server structures at least update report data and transmits the update report data over a unidirectional broadcasting network enabling broadcast and contents of the database are updated with the distributed data (see abstract, column 1, lines 52-62 and column 6, lines 59-67) and conditional updating of the database (see Figure 11, column 15, lines 19-46)." Final Office Action, page 6, 2nd

paragraph. Despite that the Examiner's language is somewhat murky, it seems clear that Yamagishi, when read in its entirety, does not disclose conditionally updating each distributed user terminal database separately according to the results of the searching of the useful data present in each distributed user database and without a return message from the databases to the managing center regarding the performing of the conditional updating.

Yamagishi does not perform conditional updating by a method or system which is totally unidirectional as is required by claim 27. Rather, Yamagishi utilizes return messages from the databases to the managing center and, thus, his attainment of conditional updating is bi-directional. For example, at column 13, lines 48-53, Yamagishi states "[w]hen update report-format data is received and selected at the reception terminal 5, a request for corresponding update data is, as mentioned above, issued to the server 2 over the communication network 6. The server 2 transmits the requested update data to the reception terminal 5 over the communication network 6." It can be seen that the Yamagishi method provides only for a comparison at the reception terminal between received update report-format data and system data of the database, such as version information, data format, addresses, etc. (i.e., system/management data rather than useful data, as defined in the above-captioned application at pages 2-3). This is confirmed in Yamagishi at Figure 11 which shows that the comparison tests made on the original incoming message from the server, prior to updating, are made on system data related to the description, structure, or version of the data in the database and not on useful data as is required by claim 27. Then, according to the result of the comparison, the receiver sends a request for update data to the server via network 6 (i.e., a return message). See also, Yamagishi Abstract. No update is made on the basis of the useful data in the database, as is required by claim 27. Rather, the Yamagishi method requires a return message from the receiver to the server in order to receive update data, a step which is prohibited according to the terms of claim 27 (which recites a method wherein there are no return messages from the databases to the managing center regarding the performing of conditional updating).

A serious drawback of the Yamagishi method is the bi-directional data exchange over the network in both directions, initially from the server to the databases, then the return message from the databases to the server and, finally, the transmission of update data from

the server to the databases. The method of claim 27 aims to minimize the data stream by sending an identical message to each receiver in a unidirectional way (i.e., server to receiver only). The updating is then carried out individually at the receiver side according to the useful data in the receiver's database. Such local database updating does not need any further return message request to the server via a return channel. The Examiner, at page 4, line 5 of the Final Office Action, is dismissive of this distinction stating that "one of ordinary skill in the art should know that unidirectional is a subset of bi-directional." However, the Examiner clearly misses the point. He would have us ignore the distinction between the two on the basis that every bi-directional communication includes a unidirectional communication. But such a shorthand is clearly misleading. Yamagishi knows only one method of conditionally updating the databases, and that is via a bi-directional exchange from the server to the receiver, then, from the receiver to the server, followed by a provision of update data from the server to the receiver. In no prior art instance is the update data determined by searching through the useful data in the receiver's database solely on the basis of a message from the server which includes queries for searching the useful data in the user database. Applicant has discovered that the bi-directional communications are not necessary and that the same result can be achieved by a single unidirectional communication. According to applicant's claimed method, two steps of Yamagishi's three step exchange between server and receiver are eliminated. Clearly, this elimination of such communications is an advance in the art which is not suggested by Yamagishi or contemplated by the prior art. It surely cannot be dismissed as being merely a subset of bi-directional communications. Indeed, the absence of a return channel from receiver to server implies extended specific features and instructions, respectively, in the receiver and in the messages for updating the databases. In other words, transmission methods working on a bi-directional basis, as in Yamagishi, cannot be simply used unidirectionally without any changes in the transmitted data and in the conditional controls in the message sent to all user terminal databases.

No combination of Pirovano et al and Yamagishi Render Obvious or Amount to The Claimed Invention

It will be appreciated from a careful reading of the cited references, contrary to the Examiner's assertions, that there is no disclosure or suggestion in Pirovano et al or Yamagishi, or in their purported combination, of the claim 27 steps of:

- providing identical messages without any database addressing transmitted from the managing center--;
- providing identical messages which include queries for searching useful data present in distributed user databases--;
- transmitting the identical messages from the managing center over a unidirectional connection to a plurality of distributed user databases--;
- conditionally updating each distributed user terminal database separately according to the results of the searching of the useful data present in each distributed user database--; and
- accomplishing the conditional updating without a return message from the databases to the managing center regarding the performing of the conditional updating.--

Stated otherwise, the very techniques which are set forth in applicant's claim 27 are not taught at all in the cited prior art. The Examiner's rejection, based as it is on unsubstantiated conclusory statements, cannot be sustained. Where, as here, neither of the cited references teach or suggest the claim limitations for which they were cited, the combination of these references is unlikely to establish the requisite level of obviousness to substantiate a rejection under 35 U.S.C. §103(a). *See, Alza Corp. v. Mylan Laboratories, Inc.*, 464 F.3d 1286, 1297, 28 U.S.P.Q.2d (Fed. Cir. 2006) ("if each of two pieces of evidence, asserted separately, is severely inadequate to support a proposition, when their probative values are tallied, they still fall short").

Conclusion

In view of the foregoing, it is respectfully submitted that the Examiner's ground of rejection under 35 U.S.C. §103(a) over Pirovano et al in view of Yamagishi should be reversed.

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Respectfully submitted,

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VIII. CLAIMS APPENDIX

Claims Involved in the Appeal

1.-26. (Cancelled)

27. (Previously presented) A method for transmitting messages over a communication network to update a large quantity of network user terminal databases, the messages being transmitted unidirectionally from a managing center to a plurality of distributed user databases, each distributed user database being stored in a user terminal, said method comprising the steps of:

providing identical messages without any database addressing to be unidirectionally transmitted from the managing center, wherein each identical message includes conditional controls that include queries for searching the useful data present in distributed user databases;

transmitting said messages from the managing center over a unidirectional connection to a plurality of distributed user databases;

allowing individual user terminals to execute said queries and to search the useful data present in each distributed user database for predetermined data; and

conditionally updating each distributed user terminal database separately according to the results of said searching of the useful data present in each distributed user database and without a return message from the databases to the managing center regarding the performing of the conditional updating.

28. (Cancelled)

29. (Previously presented) The method of transmitting messages of claim 27, wherein said distributed user databases are integrated in Pay-TV reception subscriber's units and wherein the predetermined data comprise the reception rights of a subscriber.

30. (Previously presented) The method of transmitting messages of claim 27, wherein said updating messages comprise a set of control blocks comprising data and controls, and wherein said updating messages consist of carrying out comparison operations between the data and the contents of the distributed user database and determining an action depending on the comparisons results, either to update the database, carry out the subsequent control block, to jump to another control block, or to terminate the message handling.

31. (Previously presented) The method of transmitting messages of claim 27, wherein the database is divided or is of a relational type RDB.

32-38. (Canceled)

39. (Previously presented) The method of transmitting messages of claim 30, wherein each distributed user database is connected to a Pay-TV subscriber module and wherein the action includes returning a message towards the subscriber module for carrying out in said module an event including at least one of a notice of a message on a TV display, a sound signal, and a phone call on a modem connected to a public network.

IX. EVIDENCE APPENDIX

There is no additional evidence relied upon by the appellant or the Examiner.

X. RELATED PROCEEDINGS APPENDIX

There are no related appeals or interferences.